The invention claimed is:

1. A shifter assembly for controlling the transmission of a motor vehicle, comprising:

a base configured to be mounted to a motor vehicle;

a shift member movably mounted to said base, said shift member movable to a plurality of discreet positions including at least a PARK position, a REVERSE position and a DRIVE position and providing an output for controlling a transmission according to the position of said shift member;

a shift gate fixed to a selected one of said base and said shift member and having at least PARK, REVERSE, and DRIVE gear positions;

a powered pawl mechanism fixed to the other of said base and said shift member, said pawl mechanism having a pawl member shiftable between an engaged position wherein said pawl member engages a selected one of said gear positions of said shift gate and at least partially restrains movement of said shift member, and a disengaged position wherein said pawl member is disengaged from said shift gate.

2. The shifter assembly of claim 1, wherein:

said pawl mechanism is fixed to said base.

3. The shifter assembly of claim 1, wherein:

said shift member comprises a lever; and

said pawl mechanism is fixed to said shift lever and moves with said shift lever.

4. The shifter assembly of claim 2, including:

an electrical switch mounted on said shift lever; and wherein:

said pawl mechanism includes a solenoid that shifts said pawl member into said disengaged position upon actuation of said electrical switch.

5. The shifter assembly of claim 4, wherein:

said shift gate includes notches forming said gear positions, each said notch including a bottom surface and a side surface that restrains movement of said shift lever in at least a first direction when said pawl member is in said engaged position.

6. The shifter assembly of claim 5, wherein:

said solenoid is biased into said engaged position;

said shift lever is pivotably mounted to said base and pivots about a pivot axis;

said pawl member configured such that it does not contact a bottom surface of said at least one of said notches when in said engaged position to thereby avoid generating noise.

7. The shifter assembly of claim 6, wherein:

said shift gate includes a notch forming a NEUTRAL position; and

said notch forming said REVERSE gear position is shaped to permit said pawl member to move into said NEUTRAL position by movement of said shift lever when said pawl member is in the engaged position, but prevents movement of said pawl member from said NEUTRAL position to said PARK position when said pawl member is in said engaged position.

8. The shifter assembly of claim 1, wherein:

said PARK, REVERSE and DRIVE gear positions define a first shift lane, and wherein:

said shifter assembly includes a second shift lane having gear positions providing single gear upshifts and downshifts.

9. The shifter assembly of claim 8, wherein:

said second shift lane is generally parallel to said first shift lane and includes a PLUS position at a first end for upshifting one gear, and a MINUS position at a second end for downshifting one gear.

10. The shifter assembly of claim 8, wherein:

said shift lever disconnects from said shift gate when moved into said second shift lane; and

said pawl retains said shift gate in position when said shift lever is in said second shift lane.

11. The shifter assembly of claim 10, including:

a cable connected to said shift gate for controlling a transmission based upon movement of said shift gate when said shift lever is in said first shift lane; and

at least one sensor adapted to generate a signal corresponding to a position of said shift lever in said second lane for controlling a transmission.

12. The shifter assembly of claim 4, wherein:

said pawl member is biased into said engaged position; and

said shifter assembly includes a manual release member operably connected to said pawl member to permit manual movement of said pawl member out of said engaged position.

13. The shifter assembly of claim 2, wherein:

said shift member and said shift gate comprise an integrally formed one-piece unit.

14. A shifter assembly for controlling a transmission, comprising:

a base configured to be mounted in a vehicle;

a shift member movably mounted to said base, said shift member including a shift gate having a plurality of gear positions, said shift gate moving with said shift member;

a powered pawl mechanism including a pawl member shiftable between an engaged position wherein said pawl member at least partially restrains movement of said shift member, and a disengaged position permitting movement of said shift member between at least two of said gear positions.

15. The shifter assembly of claim 14, wherein:

said powered pawl mechanism includes a solenoid.

16. The shifter assembly of claim 14, wherein:

said shift member comprises a shift lever;

said shift gate includes PARK, REVERSE and DRIVE gear positions defining a first shift lane;

said shift lever movable to a second shift lane having single gear upshift and downshift positions.

17. The shifter assembly of claim 16, wherein:

said shift lever disengages from said shift gate when in said second shift lane, and said pawl mechanism prevents movement of said shift gate when said shift lever is in said second lane.

18. The shifter assembly of claim 17, including:

a cable connected to said shift gate for controlling a transmission based upon movement of said shift gate when said shift lever is in said first shift lane; and

at least one sensor adapted to generate a signal corresponding to a position of said shift lever in said second lane for controlling a transmission.

19. The shifter assembly of claim 14, wherein:

said powered pawl mechanism includes a solenoid; and including:

a manual release member adapted to shift said pawl member out of said engaged position without actuation of said solenoid.

20. A shifter for controlling the transmission of a motor vehicle, comprising:

a base;

a shift member movably mounted to the base;

a shift gate mounted on a selected one of said base and said shift member, said shift gate having a plurality of transmission control positions;

said shift member movable to input positions corresponding to said transmission control positions; and:

a powered pawl mounted on the other of the base and the shift lever for selectively engaging said transmission control positions of said shift gate to restrict movement of said shift member.

21. The shifter of claim 20, wherein:

said powered pawl is biased into an engaged position;

said shift member comprises a shift lever that is movable to a PARK position, and:

said shifter includes a controller that does not actuate said powered pawl when said shift lever is in said PARK position unless said controller determines that a key is in the ignition of the vehicle, and the brake pedal is depressed.

22. The shifter of claim 21, wherein:

said shift lever includes an input member that can be selectively actuated by an operator, and:

said controller does not actuate said powered pawl unless said input member is actuated by a vehicle operator.

23. The shifter of claim 20, including:

a controller that actuates said powered pawl based at least in part on a vehicle operating parameter.

24. The shifter of claim 23, wherein:

said at least one vehicle operating parameter comprises engine r.p.m.

25. The shifter of claim 23, wherein:

said at least one vehicle operating parameter comprises the vehicle speed.

26. The shifter of claim 20, including:

a controller operably coupled to said powered pawl;

a movable input member generating a signal to said controller such that said controller can determine which input position said shift member is in; and wherein:

said controller controls said powered pawl based upon vehicle operating parameters and the position of said shift member.

27. The shifter of claim 26, wherein:

said movable input member generates a signal proportional to the distance moved, and said controller controls said powered pawl based on said signal.

28. The shifter of claim 26, wherein:

said controllers controls said powered pawl based on the number of times said input member is moved during a predetermined time interval.

29. The shifter of claim 28, wherein:

said controller moves said pawl a first distance if said input member is moved once during said time interval, and moves said pawl a second distance that is different than said first distance if said input member is moved twice during said time interval.

30. A shifter for controlling a transmission, comprising:

a base;

a shift member movably mounted to said base, said shift member movable to a plurality of gear positions;

a pawl mechanism configured to selectively restrict movement of said shift member relative to said base, said pawl mechanism including a solenoid having a movable member that shifts from a rest position to an actuated position upon actuation of said solenoid, said solenoid including a magnet biasing said movable member into said rest position.

31. The shifter of claim 30, wherein:

said solenoid includes a spring biasing said movable member into said rest position.

32. The shifter of claim 31, wherein:

said magnet defines an attraction region within which said magnet will cause said movable member to return to said rest position, said spring configured to bias said movable member into said attraction region.

33. The shifter of claim 32, wherein:

said movable member is movable through a range of motion within said attraction region, and wherein said spring is configured such that it does not bias said movable member throughout at least a portion of said range of motion.

34. The shifter of claim 30, wherein:

movable member shifts in a horizontal direction.

35. The shifter of claim 30, wherein:

said pawl mechanism includes a pawl member elastically coupled to said movable member such that said pawl member is movable relative to said movable member.

36. The shifter of claim 30, including:

a controller operably coupled to said solenoid and controlling actuation of said solenoid based at least in part on vehicle operating parameters.

37. The shifter of claim 36, wherein:

said controller controls actuation of said solenoid based at least in part upon movement of said shift member.

38. The shifter of claim 37, wherein:

said controller actuates said solenoid to prevent movement of said shift member based upon the direction of movement of said shift member and the vehicle's velocity.

39. The shifter of claim 38, wherein:

the shift member is movable to a PARK position and a gear position;

said controller actuates said solenoid to prevent further movement of said shift member if said shift lever has started moving towards said PARK position and the vehicle is traveling at a velocity above a preselected magnitude.

40. A shift mechanism for controlling a transmission, comprising:

a base;

a shift member movably mounted to said base, said shift member movable to a plurality of gear positions, said shift member being biased into a non-gear position;

a powered pawl mechanism configured to prevent movement of said shift member out of said non-gear position when said powered pawl is engaged;

a controller operably coupled to said powered pawl mechanism and selectively actuating said powered pawl mechanism to permit movement of said shift member.

41. The shift mechanism of claim 40, wherein:

the gear positions include REVERSE, FORWARD and PARK gear positions, and the controller is configured to actuate the powered pawl mechanism and prevent movement of the shift member into the park gear position based on a selected vehicle operating parameter.

42. The shift mechanism of claim 41, wherein:

the vehicle operating parameter comprises the speed of the vehicle.

43. The shift mechanism of claim 40, wherein:

the gear positions include PARK, NEUTRAL, REVERSE, and DRIVE positions.

44. The shift mechanism of claim 43, wherein:

the PARK and NEUTRAL gear positions are connected by a laterally extending lane, and the drive and reverse positions are connected by a lane that crosses the laterally extending lane.

45. The shift mechanism of claim 40, wherein:

the base includes a socket; and

the shift member comprises a shift lever having a ball pivotably received in the socket, said ball including at least one indentation that is engaged by the pawl mechanism to restrict movement of the shift lever.

46. The shift mechanism of claim 45, wherein:

the indentation comprises a slot that restricts rotation of the shift lever.

47. The shift mechanism of claim 46, wherein:

the slot includes transverse portions restricting rotation of the shift lever about two distinct axes.

48. The shift mechanism of claim 40, including:

a sensor associated with at least a selected one of the gear positions and generating a signal to the controller if the shift member is in the selected one of the gear positions.

49. The shift mechanism of claim 40, wherein:

the shift member is movable to a PARK position, said controller configured to lock the shift member in the PARK position unless the controller determines that a brake pedal of the vehicle is depressed, and the ignition is in the run condition.

50. The shift mechanism of claim 40, wherein:

the pawl mechanism includes a guide member, a pawl member and a linear actuator having a movable output member elastically coupled to the pawl member, such that forces applied to the shift member are reacted by the guide member.

51. A shifter for motor vehicle transmissions, comprising:

a base;

a shift member movably associated with the base for movement to a plurality of gear positions;

a powered pawl mechanism configured to selectively restrict movement of the shift member; and

a controller configured to control the powered pawl mechanism based at least in part upon at least one vehicle operating parameter other than the position of the brake pedal and vehicle ignition.

52. The shifter of claim 51, wherein:

the powered pawl mechanism includes a pawl member and a shift gate, and wherein the pawl member is selectively shifted into engagement with the shift gate.

53. The shifter of claim 51, including:

an input device permitting an operator to provide the controller with a signal, the controller controlling the powered pawl based at least in part on the signal.

54. The shifter of claim 53, wherein:

the shift member comprises a shift lever;

the input device comprises a movable member mounted on the shift lever.

55. The shifter of claim 54, wherein:

the movable member comprises a button that translates linearly.

56. The shifter of claim 54, wherein:

the controller controls the powered pawl based at least in part on a selected one of the position, velocity, and acceleration of the movable member.

57. The shifter of claim 54, wherein:

the movable member shifts between first and second positions; the controller controlling the powered pawl based at least in part on the number of times the movable member is shifted between the first and second positions.

58. The shifter of claim 51, including:

a release mechanism permitting an operator to manually control the powered pawl mechanism.

59. The shifter of claim 51, including:

the controller determines at least a selected one of the position, velocity and acceleration of the shift member and controls the powered pawl mechanism based at least in part on the selected one of the position, velocity and acceleration.

60. A shifter for vehicles, comprising:

a base;

a shift member movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

an electrically powered pawl on the other of the base and the shift member, wherein the electrically powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift member relative to the base; and

a manually operable release mechanism adapted to shift the pawl out of the engaged position without a supply of electrical power to the electrically powered pawl.

61. The shifter of claim 60, wherein:

the shift gate is part of the shift member; and

the electrically powered pawl is mounted to the base.

62. The shifter of claim 60, wherein:

the powered pawl comprises a solenoid.

63. The shifter of claim 60, wherein:

the shift member comprises a shift lever.

64. The shifter of claim 60, including:

at least one device configured to generate a signal to a controller corresponding to a selected one of the plurality of gear positions.

65. The shifter of claim 60, wherein:

the manually operable release mechanism is operable to release the pawl in each of the plurality of gear positions.

66. The shifter of claim 65, wherein:

the plurality of gear positions comprises at least a PARK, REVERSE, NEUTRAL and DRIVE gear positions.

67. The shifter of claim 60, including:

a mechanical linkage coupled to the shift member for controlling a transmission.

68. The shifter of claim 61, wherein:

the base includes a stop surface; and

the powered pawl includes a linearly movable output member that shifts along an axis and an engagement member resiliently coupled to the output member such that the engagement

member engages the shift gate and the stop surface upon application of a force to the shift member when the pawl is in the engaged position to thereby transfer forces into the base.

69. The shifter of claim 61, wherein:

the pawl is biased into the engaged position, and the release mechanism comprises a release member that is longitudinally shiftable between a rest position and a release position, the release member engaging the pawl and moving it from the engaged position upon movement of the release member, and wherein the release member is biased into the rest position.

70. A shifter for vehicles, comprising:

a base including a shift gate having a plurality of gear positions;

a shift member rotatably mounted to the base for rotation about an axis, the shift member including a powered pawl that engages the gear positions to at least partially restrict movement of the shift member relative to the base; and wherein:

the plurality of gear positions generally form an arc about the axis.

71. The shifter of claim 70, wherein:

the shift member comprises a shift lever and the axis is generally horizontal; and

the pawl includes a horizontally shiftable member that engages the shift gate.

72. The shifter of claim 71, wherein:

the powered pawl comprises a solenoid.

73. The shifter of claim 72, including:

at least one device configured to generate a signal to a controller corresponding to a selected one of the plurality of gear positions.

74. The shifter of claim 73, wherein:

the plurality of gear positions comprises at least a PARK, REVERSE, NEUTRAL and DRIVE gear positions.

75. A shifter for vehicles, comprising:

a base;

a shift member movably mounted to the base and including a shift gate having a plurality of gear positions;

a powered pawl including a solenoid mounted to the base and having a linearly shiftable output member that engages the shift gate to at least partially restrict movement of the shift member.

76. The shifter of claim 75, wherein:

the shift member comprises a shift lever.

77. The shifter of claim 76, including:

at least one device configured to generate a signal to a controller corresponding to a selected one of the plurality of gear positions.

78. The shifter of claim 77, wherein:

the plurality of gear positions comprises at least a park, neutral and drive gear positions.

79. The shifter of claim 76, including:

a mechanical linkage coupled to the shift member for controlling a transmission.

80. A shifter for vehicles, comprising:

a base;

a shift member movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift member, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift member relative to the base;

the powered pawl including a solenoid having a housing and a rod movably mounted within the housing, the rod including a magnet, wherein the magnet is encapsulated by a resilient material to form an integral damper to reduce noise.

81. The shifter of claim 80, wherein:

the magnet has a ring-like shape with generally parallel side faces.

82. The shifter of claim 81, wherein:

the rod is made of a polymer material molded at least partly around the magnet.

83. The shifter of claim 82, wherein:

the resilient material defines a melting temperature; and

the polymer material has a melting temperature that is greater than the melting temperature of the resilient material.

84. The shifter of claim 83, wherein:

the polymer material extends along at least a portion of the side faces of the magnet to retain the magnet.

85. A shifter for vehicles, comprising:

a base;

a shift member movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift member, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift member relative to the base;

wherein the powered pawl includes a solenoid having an output member shiftable between a rest position and an actuated position, the solenoid including a magnet biasing the solenoid to the rest position.

86. The shifter of claim 85, including:

a spring biasing the output member to the rest position.

87. The shifter of claim 86, wherein:

the output member comprises a rod made of a polymer material.

88. The shifter of claim 86, wherein:

the shift member comprises a shift lever rotatably mounted to the base.

89. The shifter of claim 88, wherein:

the plurality of gear positions comprises at least a park, neutral and drive gear positions.

90. A shifter for vehicles, comprising:

a base;

a shift member movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift member, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift member relative to the base; and wherein:

the base includes a stop surface; and

the powered pawl includes a linearly movable output member that shifts along an axis and an engagement member resiliently coupled to the output member such that the engagement member engages the shift gate and the stop surface upon application of a force to the shift member when the pawl is in the engaged position to thereby transfer forces into the base.

91. The shifter of claim 90, wherein:

the shift gate is part of the shift member; and

the powered pawl is mounted to the base.

92. The shifter of claim 91, wherein:

the powered pawl comprises a solenoid.

93. The shifter of claim 90, wherein:

the engagement member is coupled to the output member by an elastomeric member.

94. The shifter of claim 93, wherein:

the elastomeric member is configured to permit movement of the engagement member relative to the output member in a direction transverse to the direction of movement of the output member.

95. A shifter for vehicles, comprising:

a base;

a shift lever having an end portion, wherein the shift lever is movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift member, wherein the powered pawl includes a solenoid shifting an engagement member to an engaged position engaging the shift gate to at least restrict movement of the shift member relative to the base and a disengaged position permitting movement of the shift member relative to the base;

a toggle linkage interconnecting the engagement member and the solenoid, the toggle linkage substantially locking the engagement member in the engaged position, the engagement member and notches having engagement surfaces configured to permit shifting of the engagement member from the engaged position to the disengaged position upon actuation of the solenoid despite application of a predetermined first force to the end portion of the shift lever, the engagement surfaces further configured to prevent shifting of the release member from the engaged position to the disengaged position if the solenoid is not actuated and a second force this is substantially larger than the first force is applied to the end portion of the shift lever, and wherein:

the engagement member includes first opposed contact surfaces extending at an angle that is between about fifty and eighty-five degrees relative to the first direction, at least one of the notches having opposed second contact surfaces substantially parallel to the first opposed surfaces, and wherein each of the notches defines a depth, each of the depths being equal such that the toggle linkage is in substantially the same configuration when engaging each notch.

96. The shifter of claim 95, wherein:

the toggle linkage includes a first link having a first end pivotably coupled to the engagement member, and a second link having a first end pivotably coupled to a second end of the first link, and a second end pivotably coupled to the base, wherein the engagement member shifts in a first direction, the solenoid having an output member pivotably connected to the second end of the first link and the first end of the second link, the output member shifting substantially transverse to the first direction.

97. The shifter of claim 96, wherein:

the angle is between about sixty and eighty degrees.

98. The shifter of claim 97, wherein:

the first force is about five pounds or less and the second force is about one hundred pounds or more.

99. The shifter of claim 97, wherein:

the first end of the first link is coupled to a linear guide that restricts movement of the first end of the first link to the first direction.

100. A shifter for vehicles, comprising:

a base;

a shift lever movably mounted to the base for movement to a plurality of gear positions, the shift lever defining an end and having at least one electrical conductor extending from the end along the shift lever;

a shift gate on one of the base and the shift lever, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift lever, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift lever relative to the base; and wherein:

the end of the shift lever is enlarged to form an integral knob including an input device that can be triggered by a user to actuate the powered pawl.

101. The shifter of claim 100, wherein:

the powered pawl comprises a solenoid.

102. The shifter of claim 100, wherein:

the shift gate is part of the shift member; and

the powered pawl is mounted to the base.

103. The shifter of claim 100, wherein:

the input device comprises a linearly movable button.

104. The shifter of claim 100, wherein:

the button actuates the powered pawl upon movement of about 6 mm or less.

105. A shifter for vehicles, comprising:

a base;

a shift lever movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift lever, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift lever, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift lever relative to the base; and

a knob mounted on the shift lever, the knob having a button thereon that can be moved by an operator to provide a signal to release the powered pawl, wherein the knob and shift lever are interconnected by an integrated mechanical and electrical connection that mates the knob with the lever.

106. The shifter of claim 105, wherein:

the first threadless mechanical quick connector comprises an end portion of the shift lever; and

the second threadless mechanical quick connector comprises a cavity in the knob.

107. The shifter of claim 105, wherein:

the powered pawl comprises a solenoid.

108. The shifter of claim 105, including:

the shift lever includes an elongated conductor extending along the shift lever;

the shift lever including a first electrical connector at an end of the shift lever that is electrically connected to the elongated conductor; and wherein:

the knob includes a second electrical connector electrically coupled to the first electrical connector.

109. The shifter of claim 105, wherein:

the plurality of gear positions comprises at least a park, neutral and drive gear positions.

110. A shifter system for vehicles, comprising:

a base;

a shift member movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

a main vehicle electrical power supply;

a backup electrical power supply that provides electric power in the event the main vehicle electrical power supply fails;

an electrically powered pawl on the other of the base and the shift member, wherein the electrically powered pawl can be actuated to shift the pawl to a release position permitting movement of the shift member relative to the base utilizing electrical power from the backup electrical power supply.

111. The shifter system of claim 110, wherein:

the shift gate is part of the shift member; and

the electrically powered pawl is mounted to the base.

112. The shifter system of claim 110, wherein:

the electrically powered pawl comprises a solenoid.

113. The shifter system of claim 110, wherein:

the shift member comprises a shift lever.

114. The shifter system of claim 110, including:

at least one device configured to generate a signal to a controller corresponding to a selected one of the plurality of gear positions.

115. The shifter system of claim 110, including:

a manually operably release mechanism that is operable to release the pawl in each of the plurality of gear positions.

116. The shifter system of claim 115, wherein:

the plurality of gear positions comprises at least a PARK, REVERSE, NEUTRAL, and DRIVE gear positions.

117. The shifter system of claim 110, including:

a mechanical linkage coupled to the shift member for controlling a transmission.

118. The shifter system of claim 111, wherein:

the base includes a stop surface; and

the electrically powered pawl includes a linearly movable output member that shifts along an axis and an engagement member resiliently coupled to the output member such that the engagement member engages the shift gate and the stop surface upon application of a force to the shift member when the pawl is in the engaged position to thereby transfer forces into the base.

119. The shifter system of claim 110, including:

a switch on the shift member that can be manipulated by an operator to control the electrically powered pawl.

120. A shifter for vehicles, comprising:

a base;

a shift member movably mounted to the base for movement to a plurality of gear positions;

a shift gate on one of the base and the shift member, the shift gate having a plurality of notches corresponding to the gear positions;

a powered pawl on the other of the base and the shift member, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift member relative to the base; and

a controller operably coupled to the powered solenoid, the controller configured to control the powered pawl based, at least in part, upon a signal received by a component of a keyless ignition system.

121. The shifter of claim 120, wherein:

the shift gate is part of the shift member; and

the powered pawl is mounted to the base.

122. The shifter of claim 121, wherein:

the powered pawl comprises a solenoid.

123. The shifter of claim 122, wherein:

the shift member comprises a shift lever.

124. The shifter of claim 123, wherein:

the plurality of gear positions comprises at least a park, neutral and drive gear positions.

125. A shifter for controlling a vehicle transmission, comprising:

a controller;

a base;

a shift member movably mounted to the base, the shift member being movable to a plurality of gear positions;

a powered pawl engagable with a selected one of the base and the shift member to restrict movement of the shift member relative to the base;

a device operably coupled to the shift member and providing an operating parameter to the controller; wherein:

the shift member does not include an input device for actuation of the pawl, such that the controller controls the powered pawl based upon at least one operating parameter provided by the device.

126. The shifter of claim 125, wherein:

the operating parameter comprises vehicle velocity.

127. The shifter of claim 126, including:

a shift gate engagable by the powered pawl to selectively restrict movement of the shift member relative to the base, wherein the shift gate includes a first gear position and a second gear position, and wherein the controller controls the pawl to prevent movement from the first gear position to the second gear position if the vehicle velocity is above a predetermined value.

128. The shifter of claim 127, wherein:

the first gear position comprises a FORWARD gear position, and the second gear position comprises a PARK gear position.

129. The shifter of claim 128, wherein:

the predetermined value comprises a forward velocity of a vehicle.

130. The shifter of claim 125, wherein:

the powered pawl includes a movable pawl member;

the shifter includes a shift gate having a plurality of gear positions engagable by the movable pawl member;

the controller controls a distance of movement of the movable pawl member based, at least in part, on the at least one operating parameter.

131. The shifter of claim 130, wherein:

the movable pawl member defines a partially retracted position and a fully retracted position, and wherein the shift gate defines first, second and third gear positions, and wherein the shift gate is configured to permit movement of the shift member from the first gear position to the second gear position when the pawl member is partially retracted, the shift gate configured to prevent movement from the second gear position to the third gear position when the pawl member is partially retracted and to permit movement of the shift member from the second gear position to the third gear position when the pawl member is fully retracted.

132. The shifter of claim 131, wherein:

the first gear position comprises a NEUTRAL gear position;

the second gear position comprises a REVERSE gear position; and

the third gear position comprises a PARK gear position.

133. The shifter of claim 132, wherein:

the operating parameter comprises vehicle speed.

134. The shifter of claim 133, wherein:

the controller does not fully retract the movable pawl member when it is in the PARK gear position unless the vehicle velocity is below a predetermined amount.

135. The shifter of claim 134, wherein:

the controller does not fully retract the movable member when it is in the PARK gear position unless the brake pedal is depressed.

136. The shifter of claim 125, wherein:

the powered pawl comprises a solenoid.

137. The shifter of claim 125, wherein:

the operating parameter comprises depression of a brake pedal.

138. The shifter of claim 125, including:

a sensor configured to provide the controller with at least one of a position and a velocity of the shift member; and

the controller controls the powered pawl based, at least in part, on the one of a position and a velocity of the shift member.

139. A shifter for controlling a vehicle transmission, comprising:

a controller;

a base;

a shift member movably mounted to the base, the shift member being movable to a plurality of gear positions;

a powered pawl engagable with a selected one of the base and the shift member to restrict movement of the shift member relative to the base; the powered pawl including a movable pawl member that defines first, second, and third distinct positions, wherein:

the controller is configured to selectively control the position of the movable pawl member and selectively shift the pawl member to the first, second, and third positions.

140. The shifter of claim 139, wherein:

the shift member includes an input device that can be manipulated by a user to generate a signal to the controller;

the controller shifts the movable pawl member based, at least in part, upon the signal from the input device.

141. The shifter of claim 140, wherein:

the input device comprises a push button.

142. The shifter of claim 141, wherein:

the controller controls the movable pawl member based upon a distance the push button is moved.

143. The shifter of claim 139, wherein:

the controller controls the movable pawl member based upon the number of times the button is depressed within a selected time interval.

144. The shifter of claim 139, wherein:

the controller controls the movable pawl member based upon a speed at which the push button is depressed.

145. The shifter of claim 139, including:

an input device providing the controller with a vehicle operating parameter; and wherein:

the controller shifts the movable pawl member based, at least in part, upon the vehicle operating parameter.

146. The shifter of claim 145, wherein:

the vehicle operating parameter comprises a vehicle velocity.

147. The shifter of claim 146, wherein:

the first position comprises a retracted position;

the second position comprises an intermediate position; and

the third position comprises an extended position.

148. The shifter of claim 139, including:

a sensor configured to provide the controller with at least one of a position and a velocity of the shift member; and

the controller controls the powered pawl based, at least in part, on the one of a position and a velocity of the shift member.

149. The shifter of claim 139, including:

a shift gate engagable by the powered pawl to selectively restrict movement of the shift member relative to the base, wherein the shift gate includes a first gear position and a second gear position, and wherein the controller controls the pawl to prevent movement from the first gear position to the second gear position if the vehicle velocity is above a predetermined value.

150. A shifter for controlling the transmission, comprising:

a base;

a shift member movably associated with the base for movement to a plurality of gear positions;

a powered pawl configured to selectively restrict movement of the shift member relative to the base;

a controller;

a portable device generating a security signal that is receivable by the controller when the portable device is in the vicinity of the controller; and wherein:

the controller controls the powered pawl based, at least in part, upon the security signal from the portable device.

151. The shifter of claim 150, wherein:

the plurality of gear positions includes a PARK gear position, the powered pawl selectively retaining the shift member in the PARK gear position unless the controller receives the security signal.

152. The shifter of claim 150, wherein:

the security signal includes a selected sequence of elements that the controller requires to be received in order to actuate the powered pawl.

153. The shifter of claim 150, wherein:

the shift member comprises a shift lever;

the powered pawl includes a solenoid.

154. A shifter for controlling a transmission, comprising:

a base;

a shift gate member movably mounted to the base, the shift gate member defining a shift gate having a plurality of gear positions;

a pawl selectively restricting movement of the shift gate member relative to the base;

a shift lever movably mounted to the base and movable along an automatic shift lane having at least a DRIVE gear position, the shift lever also movable in a manual shift lane having upshift and downshift gear positions; wherein:

the shift lever engages the shift gate member and moves the shift gate member as the shift lever is moved in the automatic shift lane, the shift lever disengaging from the shift gate member when the shift lever is in the manual shift lane, such that the shift lever does not move the shift gate member when the shift lever is in the manual shift lane.

155. The shifter of claim 154, including:

a powered actuator operably coupled to the pawl and shifting the pawl to engage and disengage the pawl from the shift gate.

156. The shifter of claim 155, wherein:

the shift gate member is rotatably mounted to the base, and the shift gate includes notches defining PARK, REVERSE, and DRIVE gear positions.

157. The shifter of claim 156, wherein:

the manual shift lane is generally parallel to the automatic shift lane, with a transverse lane extending between the manual shift lane and the automatic shift lane.

158. The shifter of claim 157, wherein:

the shift gate member defines a connector portion, the shift lever engaging the connector portion as the shift lever is moved from the manual shift lane to the automatic shift lane.

159. The shifter of claim 158, wherein:

the connector portion includes generally parallel surface portions, wherein the shift lever is positioned between the surface portions when in the automatic shift lane.

160. The shifter of claim 158, wherein:

the shift lever rotates about a transverse axis; and including:

a rotational position sensor that determines the position of the shift lever about the transverse axis.

161. The shifter of claim 160, including:

a controller operably coupled to the rotational position sensor and generating a signal to control a transmission.

162. The shifter of claim 158, including:

a cable coupled to the shift gate member for mechanically connecting to a transmission for control thereof.

163. The shifter of claim 162, including:

a device that generates electrical signals corresponding to upshift and downshift positions of the shift lever when the shift lever is in the manual shift lane.

164. A controller for powered vehicles, comprising:

a base;

an input control device that can be moved by an operator to a plurality of control positions including a FORWARD position and a reverse position;

a powered pawl selectively restricting movement between the input control device and the base based, at least in part, on a vehicle operating parameter.

165. The shifter of claim 164, including:

a controller operably coupled to the input control device, the controller configured to generate a signal to an electric drive motor based at least in part on the position of the input control device.

166. A shifter for controlling a transmission, comprising:

a base;

a shift lever movably mounted to the base movable to a PARK position and at least one other gear position;

a shift gate on one of the base and the shift lever, the shift gate having a plurality of notches corresponding to gear positions;

a powered pawl on the other of the base and the shift lever, wherein the powered pawl is shiftable to an engaged position engaging the shift gate to at least partially restrict movement of the shift lever relative to the base;

a mechanical key lock cylinder that selectively locks to prevent removal of a key; and

a mechanical linkage operably interconnecting the shift lever and the key lock cylinder and locking the key lock cylinder to prevent removal of a key when the shift lever is not in the PARK position.

167. The shifter of claim 166, wherein:

the mechanical linkage includes a cam member movably coupled to the shift lever, and a cable interconnecting the cam member and the mechanical key lock cylinder.

168. The shifter of claim 167, wherein:

the shift lever has an upper end and a lower end that is pivotably mounted to the base at a first pivot;

the cam member is pivotably mounted to the shift lever at a second point that is between the upper and lower ends of the shift lever.

169. The shifter of claim 168, wherein:

the cam member includes a curved cam surface; and including:

a cam follower engaging the curved cam surface and controlling rotation of the cam member about the second pivot.

170. The shifter of claim 166, including:

a controller operably coupled to the key lock cylinder and to the powered pawl, the controller preventing actuation of the powered pawl to permit shifting out of the PARK position unless the controller determines that the ignition is in the run position and the brake pedal is depressed.